Remarks

Reconsideration of this application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-22 and 26-31 are pending in the application, with claims 1, 6, 10, 16, 26, 29, 30, and 31 being the independent claims. Claims 1, 6, 14, 16, 26, and 29 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Claims 1-5

Claims 1-5 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,292,895 to Baltzley ("Baltzley ") in view of U.S. Patent No. 6,603,857 to Batten-Carew *et al.* ("Batten-Carew"). Applicant respectfully traverses this rejection.

Claim 1, as amended, recites, among other features, *a key store being configured to store a plurality of cryptographic key pairs, each of the cryptographic key pairs includes a public key and a private key, at least one of the cryptographic key pairs pertaining to a predetermined time; wherein a data portion of the secured electronic file was previously secured using a document key, and wherein the document key was previously secured by the public key of the at least one of the cryptographic key pairs pertaining to the predetermined time.*

First, the Examiner, on page 4 of the Office Action, states figure 2 (which Applicant believes that the Examiner is referring to Figure 3), numerals 320 and 325 of Baltzley allegedly show "a key store being configured to store a plurality of cryptographic key pairs, each of the plurality of cryptographic key pairs includes a public key and a private key." Applicant respectfully disagrees.

Baltzley discloses an encryption server comprising a database. The database of Baltzley may comprise a plurality of <u>encrypted</u> private keys and a plurality of public keys (Baltzley Col.4, Lines 47-50), but the plurality of encrypted private keys and public keys are not stored necessarily as a key pair as *"a plurality of cryptographic key pairs, each of the plurality of cryptographic key pairs includes a public key and a private key,"* as recited in claim 1 (emphasis added). Thus, even assuming arguendo the database of Baltzley includes the encrypted private keys and public key as pairs, this database includes an <u>encrypted</u> version of the private keys which is not the same as the *"key store being configured to store a plurality of cryptographic key pairs, each of the cryptographic key pairs includes a public key and **a private key**, at least one of the cryptographic key pairs pertaining to a predetermined time"* feature of claim 1 (emphasis added).

Second, Applicant maintains that the combination of Baltzley and Batten-Carew does not teach or suggest *"wherein a data portion of the secured electronic file was previously secured using a document key, and wherein the document key was previously secured by the public key of the at least one of the cryptographic key pairs pertaining to the predetermined time,"* as recited in claim 1, as amended.

In Baltzley, once a digital message is generated, it is encrypted with a client recipient's public key (Baltzley Col.2, Lines 55-56). In contrast, claim 1 recites that the secured electronic file was previously secured using a document key. Further, nowhere in Baltzley it is taught or suggested that the document key was previously secured by the public key of the at least one of the cryptographic pairs, as recited in claim 1, as amended.

Moreover, the Examiner states on page 4 that Batten-Carew allegedly teaches, which Applicant does not acquiesce to, that at least one of the cryptographic key pairs pertains to a predetermined time. Batten-Carew is not used to teach or suggest, nor does Batten-Carew teach or suggest, the above recited features of claim 1. Thus, Batten-Carew fails to cure the deficiencies of Baltzley as noted above. Therefore, claim 1 is patentable over Baltzley and Batten-Carew taken alone or in combination for at least the reasons provided above because the applied references cannot be used to establish a prima facie case of obviousness.

Furthermore, claims 2-5, all of which depend from independent claim 1, are also patentable over Baltzley in view of Batten-Carew for reasons similar to those set forth above with respect to independent claim 1, and further in view of their own respective features.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-5, and find the claim allowable over the applied references.

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Claim 6-9 and 26-29

Claims 6-9 and 26-29 were rejected under U.S.C. § 103(a) as allegedly being unpatentable over Batten-Carew in view of U.S. Patent No. 6,851,050 to Singhal ("Singhal"). Applicant respectfully traverses this rejection.

Claims 6, 26 and 29, as amended, recite, using respective language, among other features, *securing the electronic document through use of the time-based access key and a document key to produce a secured electronic document.*

The Examiner, on page 8 of the Office Action, relies on column 3, lines 49-52 of Batten-Carew to allegedly show the *securing the electronic document through use of the time-based access key to produce a secured electronic document*, recited in claims 6, 26, and 29. The method and apparatus of Batten-Carew is directed to controlling release of time sensitive information. A server generates a key pair upon receiving a request from an end-user that has time-sensitive information. The server sends the public encryption key to the end-user. Upon receiving the encryption key, the end-user encrypts the time-sensitive information and transmits it to the network (Batten-Carew, Col. 3, Lines 38-51). Therefore, the system of Batten-Carew uses only one encryption key to encrypt the time-sensitive information. In contrast, claims 6, 26, and 29 recite securing the electronic document through use of the *time-based access key* and a *document key*.

Moreover, Singhal discloses methods, systems and computer program instructions for providing location-independent packet routing and secure access in a wireless networking environment, enabling client devices to travel seamlessly within the environment (Singhal Abstract). Link-level encryption is used to ensure that data is not transmitted in the clear over the wireless network. Once a handshake is complete

between a client and an access point, a session key is established. Traffic between the client and the access point is encrypted using this session key (Singhal Col. 3, Lines 23-36). Therefore, in the system of Singhal, traffic is also encrypted using only the session key. In contrast, claims 6, 26, and 29 recite securing the electronic document through use of the *time-based access key* and a *document key*.

Therefore, Singhal cannot be used to cure the deficiencies of Batten-Carew, and thus the applied references cannot be used to establish a prima facie case of obviousness for claims 6, 26, and 29.

For at least the reasons set forth above, Applicant submits that independent claims 6, 26, and 29 are patentable over the combination of Batten-Carew and Singhal.

Furthermore, claims 7-9, all of which depend from independent claim 6, are also patentable over the combination of Batten-Carew and Singhal for reasons similar to those set forth above with respect to independent claim 6, and further in view of their own respective features. In addition, claims 27-28 are also patentable over the combination of Batten-Carew and Singhal for reasons similar to those set forth above with respect to independent claim 26, and further in view of their own respective features.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 6-9 and 26-29, and find the claims allowable over the applied references.

Claims 10, 12, 13-15, and 30

Claims 10, 12, 13-15, and 30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,825,876 to Peterson, Jr. ("Peterson") in view of U.S. Patent No. 5,673,316 to Auerbach *et al.* ("Auerbach"). Applicant respectfully traverses this rejection.

Claims 10 and 30 recite, among other features, *obtaining a time-based access key*; *encrypting the document key using the time-base access key to produce an encrypted document key*, using their respective language.

The Examiner, on page 9 of the Office Action, states that column 7, lines 6-9 of Peterson and specifically the "Single Key K" of Peterson teach the above-noted features of claims 10 and 30. Applicant respectfully disagrees.

The system and method of Peterson are directed to enabling access, dependent upon timed availability, to secured content provisioned on a storage medium (Peterson Col. 1, Lines 10-13). A data content of a storage medium, in the system of Peterson, may include an identifier, non-secured data, and secured data (Peterson Col. 5, Lines 30-32). In a preferred embodiment of Peterson, the secured data consists of a plurality of contiguous blocks, labeled B_1, B_2, B_3, etc., each containing data encrypted by respective keys K_1, K_2, K_3, etc. (Peterson Col. 5, Lines 50-53). The plurality of keys K_i are derivable from a *single key K*, to encrypt and decrypt corresponding blocks B_i (Peterson Col. 7, Lines 6-9).

First it is noted that the plurality of keys K_i are *unencrypted keys* that are derived from a single key K using a K_i generator. Therefore, *encrypting the document key using the time-base access key to produce an encrypted document key,* as recited in claims 10

and 30 is not the same as deriving a plurality of unencrypted keys K_i from a single unencrypted key K.

Second, the single unencrypted key K of Peterson is not *a time-based access key* as recited in claims 10 and 30. In contrast, each authorization record of Peterson that corresponds to a secured content, contains: an identifier of the secured content on storage medium; **a start date and time** (at which access thereto maybe enable); **an expiration date and time** (after which authorization lapses or is no longer in effect); a limit for usage; and **a key K** on which securing on the data content was based (Peterson Col. 6, Lines 45-51). Therefore, in contrast to the time-based access key of claims 10 and 30, the single unencrypted key K of Peterson is not a time-based access key, rather the authorization record of Peterson contains the start and expiration date and time along with the single unencrypted key K.

Further, on page 10 of the Office Action the Examiner states Auerbach teaches, which Applicant does not acquiesce to, forming a secured electronic document from at least the encrypted data portion and the encrypted document key. Auerbach is not used to teach or suggest, nor does Auerbach teach or suggest, the above-recited features of claims 10 and 30. Thus, Auerbach fails to cure the deficiencies of Peterson as noted above.

For at least the reasons set forth above, Applicant submits that independent claims 10 and 30 are patentable over the combination of Peterson and Auerbach because they cannot be used to establish a prima facie case of obviousness.

Moreover, claims 12 and 13-15, all of which depend form independent claim 10, are also patentable over the combination of Peterson and Auerbach for reasons similar to

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Nicholas M. Ryan
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those set forth above with respect to independent claim 10, and further in view of their own respective features.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 10, 12, 13-15 and 30, and find the claims allowable over the applied references.

Claim 11

Claim 11 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Peterson in view of Auerbach, and further in view of Batten-Carew. Applicant respectfully traverses this rejection.

Dependent claim 11 necessarily includes all of the features of claim 10. As discussed above, the combination of Peterson and Auerbach fails to disclose all of the features of claim 10.

Further, on page 11 of the Office Action the Examiner states Batten-Carew teaches, which Applicant does not acquiesce to, using a *public* time-based access key. Batten-Carew is not used to teach or suggest, nor does Batten-Carew teach or suggest, the above recited features of claim 10. Thus, Batten-Carew fails to cure the deficiencies of the combination of Peterson and Auerbach as noted above.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 11, and find the claim allowable over the applied references.

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Claims 16, 17, 20-22, and 31

Claims 16, 17, 20-22 and 31 were rejected under U.S.C. § 103(a) as allegedly being unpatentable over Peterson in view of U.S. Patent No. 5,235,641 to Nozawa *et al.* ("Nozawa"). Applicant respectfully traverses this rejection.

Claims 16 and 31 recite, among other features, *obtaining a time-based access key; obtaining an encrypted document key from the header portion of the secured electronic document; decrypting the encrypted document key using the time-based access key to produce a document key,* using respective language.

The Examiner, on page 12 of the Office Action, states column 6, lines 62-63 ("Key K"), column 7, lines 1-2 (K_i), and column 7, lines 1-2 (encrypted K_i are decrypted using key K) of Peterson allegedly teach the above-noted features of claims 16 and 31. Applicant respectfully disagrees.

First, as it was discussed before with respect to claims 10 and 30, the single unencrypted key K of Peterson is not *a time-based access key* as recited in claims 16 and 31. In contrast, each authorization record of Peterson that corresponds to a secured content, contains: an identifier of the secured content on storage medium; **a start date and time** (at which access thereto maybe enable); **an expiration date and time** (after which authorization lapses or is no longer in effect); a limit for usage; and **a key K** on which securing on the data content was based (Peterson Col. 6, Lines 45-51). Therefore, in contrast to the time-based access key of claims 16 and 31, the single unencrypted key K of Peterson is not a time-based access key, rather the authorization record of Peterson contains the start and expiration date and time along with the single key K. Therefore,

the *obtaining a time-based access key* feature of claims 16 and 31 is not taught or suggest by Peterson.

Second, at it was discussed before with respect to claims 10 and 30, the plurality of keys K_i of Peterson are *unencrypted keys* that are derived from a single unencrypted key K using a K_i generator and are in contrast to the encrypted document key of claims 16 and 31. Therefore, *obtaining an encrypted document key*, as recited in claims 16 and 31 is not the same as deriving a plurality of unencrypted keys K_i from a single unencrypted key K as taught in Peterson.

Third, Peterson does not teach or suggest *decrypting the encrypted document key using the time-based access key to produce a document key,* as recited in claim 16. Peterson discloses that the plurality of unencrypted keys K_i are derived from a single unencrypted key K. However, the plurality of keys K_i are <u>not an encrypted</u> document key, the single key K is <u>not a time-based access key</u>, and deriving the plurality of keys K_i from the single key K is <u>not the same as decrypting</u> the encrypted document key using the time-based access key. Therefore, *decrypting the encrypted document key using the time-based access key to produce a document key*, as recited in claims 16 and 31, is not taught or suggested by Peterson.

Further, on page 12 of the Office Action the Examiner states Nozawa teaches, which Applicant does not acquiesces to, obtaining an encrypted document key *from the header portion of the secured electronic document.* Nozawa is not used to teach or suggest, nor does Nozawa teach or suggest, the above-recited features of claims 16 and 31. Thus, Nozawa fails to cure the deficiencies of Peterson as noted above.

For at least the reasons set forth above, Applicant submits that independent claims 16 and 31 are patentable over the combination of Peterson and Nozawa.

Moreover, claims 17 and 20-22, all of which depend from independent claim 16, are also patentable over the combination of Peterson and Nozawa for reasons similar to those set forth above with respect to independent claim 16, and further in view of their own respective features.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 16, 17, 20-22, and 31, and find the claims allowable over the applied references.

Claims 18-19

Claims 18-19 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Peterson in view of Nozawa and further in view of Batten-Carew. Applicant respectfully traverses this rejection.

Dependent claims 18-19 necessarily includes all of the features of claim 16. As discussed above, the combination of Peterson and Nozawa fails to disclose all of the features of claim 16.

Further, on page 13 of the Office Action the Examiner states Batten-Carew teaches, which Applicant does not acquiesce to, using a *private* time-based access key and wherein the time-based access key being obtained is acquired from a server. Batten-Carew is not used to teach or suggest, nor does Batten-Carew teach or suggest, the above-recited features of claim 16. Thus, Batten-Carew fails to cure the deficiencies of the combination of Peterson and Nozawa as noted above.

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Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 18-19, and find the claims allowable over the applied references.
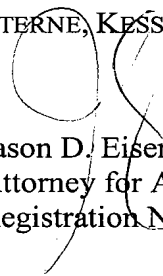
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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